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**Technical Table 1. Survey universe and reported enrollment totals for NSF's historic data collection series on science and engineering graduate students**

Year	Number of institutions surveyed	Number of reporting units surveyed	Number of departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full-time	Part-time
<b>A. Graduate Traineeship Program</b>								
1966 .....	204	204	2,866	441	2,425	169,303	124,255	45,048
1967 .....	209	209	3,014	434	2,580	179,622	133,972	45,650
1968 .....	219	219	3,190	454	2,736	184,759	140,714	44,045
1969 .....	224	224	3,354	460	2,894	196,341	147,515	48,826
1970 .....	227	227	3,544	473	3,071	201,918	153,250	48,668
1971 <sup>1</sup> .....	224	249	3,397	407	2,990	214,680	164,764	49,916
<b>B. Survey of Graduate Students and Postdoctorates in Science and Engineering<sup>2</sup></b>								
Doctorate institutions:								
1972 .....	260	328	4,593	780	3,813	210,895	161,329	49,566
1973 .....	259	336	6,538	859	5,679	214,459	161,582	52,877
1974 .....	280	370	7,485	1,398	6,087	260,312	190,665	69,647
1975 .....	328	425	7,917	1,737	6,180	295,550	207,450	88,100
1976 .....	337	435	8,011	1,790	6,221	299,724	211,227	88,497
1977 .....	338	440	8,225	1,909	6,316	307,473	213,269	94,204
1978 .....	316	425	8,189	1,798	6,391	300,482	209,107	91,375
1979 .....	354	470	8,465	1,974	6,491	316,633	217,437	99,196
1980 .....	353	469	8,568	2,020	6,548	326,147	223,620	102,527
1981 .....	351	465	8,492	2,016	6,476	332,698	227,418	105,280
1982 .....	348	463	8,347	2,000	6,347	339,123	230,458	108,665
1983 .....	347	462	8,222	1,963	6,259	345,909	236,389	109,520
1984 .....	335	454	8,220	1,928	6,292	348,277	237,444	110,833
1985 .....	335	449	8,332	1,967	6,365	357,748	241,059	116,689
1986 .....	335	451	8,406	1,979	6,427	368,366	249,763	118,603
1987 .....	339	457	8,519	1,981	6,538	373,873	254,307	119,566
1988 .....	352	471	8,771	2,071	6,700	379,454	259,698	119,756
1989 .....	353	472	8,894	2,085	6,809	386,779	266,818	119,961
1990 .....	352	471	9,034	2,127	6,907	400,371	275,433	124,938
1991 .....	352	471	9,227	2,146	7,081	415,509	287,809	127,700
1992 .....	352	471	9,465	2,194	7,271	434,505	301,772	132,733
1993 .....	352	471	9,655	2,204	7,451	442,512	307,693	134,819
1994 .....	351	470	9,864	2,259	7,605	442,915	309,329	133,586
1995 .....	350	469	10,040	2,311	7,729	437,217	305,659	131,558
1996 .....	351	470	10,054	2,360	7,694	431,694	304,234	127,460
1997 .....	350	472	10,018	2,422	7,596	424,650	301,573	123,077

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 1. Survey universe and reported enrollment totals for NSF's historic data collection series on science and engineering graduate students**

Year	Number of institutions surveyed	Number of reporting units surveyed	Number of departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full-time	Part-time
Master's institutions:								
1975 <sup>3</sup>	258	258	1,088	1,088	N/A	33,000	12,237	20,763
1976	259	259	1,101	1,101	N/A	34,031	12,219	21,812
1977	265	265	1,169	1,169	N/A	37,943	13,507	24,436
1978 <sup>4</sup>	284	284	1,322	1,322	N/A	39,430	13,923	25,507
1979	277	277	1,224	1,224	N/A	40,976	14,353	26,623
1980	275	275	1,233	1,233	N/A	40,964	14,828	26,136
1981	273	273	1,239	1,239	N/A	42,460	14,658	27,802
1982	263	263	1,240	1,240	N/A	43,211	14,338	28,873
1983	263	263	1,248	1,248	N/A	44,565	15,666	28,899
1984 <sup>5</sup>	77	77	573	573	N/A	46,393	16,478	29,915
1985 <sup>5</sup>	77	77	581	581	N/A	46,273	16,228	30,045
1986 <sup>5</sup>	77	77	582	582	N/A	47,176	16,419	30,757
1987 <sup>5</sup>	77	77	588	588	N/A	47,639	16,759	30,880
1988	254	254	1,248	1,248	N/A	45,159	15,496	29,663
1989	256	256	1,297	1,297	N/A	47,788	15,901	31,887
1990	258	258	1,328	1,328	N/A	51,807	17,397	34,410
1991	257	257	1,375	1,375	N/A	55,753	19,231	36,522
1992	256	256	1,414	1,414	N/A	59,127	20,837	38,290
1993	254	254	1,458	1,458	N/A	61,937	21,986	39,951
1994	254	254	1,512	1,512	N/A	61,627	22,800	38,827
1995	253	253	1,538	1,538	N/A	62,515	23,489	39,026
1996	252	252	1,538	1,538	N/A	62,525	24,219	38,306
1997	251	251	1,579	1,579	N/A	62,454	25,269	37,185

1 The 1972 survey also collected selected data for 1971.

2 The name of the survey was changed in 1981 to specify the inclusion of engineering.

3 The 1976 survey also collected 1975 data from master's-granting institutions.

4 Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

5 Master's-granting institutions were surveyed on a sample basis from 1984 through 1987.

**KEY:** N/A = Not applicable

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 2. Number of science, engineering, and health departments  
in doctorate-granting institutions, by detailed field: 1990-97**

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields .....	9,034	9,227	9,465	9,655	9,864	10,040	10,054	10,018
Total, science and engineering fields .....	6,519	6,671	6,826	6,918	7,057	7,177	7,171	7,176
Sciences, total .....	5,281	5,395	5,513	5,583	5,686	5,780	5,760	5,744
Physical sciences, total .....	550	558	563	566	567	576	570	571
Astronomy .....	33	33	33	34	34	35	35	35
Chemistry .....	265	267	268	268	266	267	267	267
Physics .....	238	245	247	249	252	254	250	253
Physical sciences, n.e.c. ....	14	13	15	15	15	20	18	16
Earth, atmos., & ocean sci., total .....	309	321	323	327	336	350	347	349
Atmospheric sciences .....	28	29	29	31	32	33	33	32
Geosciences .....	194	202	203	203	207	211	211	208
Oceanography .....	42	45	45	45	46	50	48	49
Earth, atmos., & ocean sci., n.e.c. ....	45	45	46	48	51	56	55	60
Mathematical sciences, total .....	362	368	375	381	388	393	393	390
Mathematics & applied mathematics .....	295	299	300	304	308	312	311	309
Statistics .....	67	69	75	77	80	81	82	81
Computer sciences .....	235	242	253	256	263	274	281	283
Agricultural sciences .....	295	303	315	312	318	324	318	328
Biological sciences, total .....	1,832	1,874	1,913	1,958	1,985	2,000	1,980	1,951
Anatomy .....	107	106	105	104	104	101	100	96
Biochemistry .....	183	187	190	190	191	192	191	191
Biology .....	237	235	237	236	235	235	237	243
Biometry/epidemiology .....	51	56	61	69	71	72	72	71
Biophysics .....	31	33	33	33	33	33	34	31
Botany .....	104	104	102	103	104	101	98	95
Cell biology .....	92	96	104	110	118	121	121	122
Ecology .....	26	27	28	27	31	31	30	30
Entomology/parasitology .....	48	49	48	49	49	48	48	48
Genetics .....	67	72	76	79	82	84	83	82
Microbio., immunology, & virology .....	237	243	249	260	261	265	264	254
Nutrition .....	104	109	113	116	121	125	124	122
Pathology .....	143	147	145	143	143	144	139	138
Pharmacology .....	162	163	166	167	168	168	163	158
Physiology .....	145	146	146	146	144	146	144	138
Zoology .....	49	49	47	50	50	49	45	41
Biosciences, n.e.c. ....	46	52	63	76	80	85	87	91
Psychology, total .....	468	490	513	518	534	550	555	558
Psychology, general .....	171	170	168	165	167	167	163	166
Clinical psychology .....	101	106	111	114	116	123	127	126
Psychology, n.e.c. ....	196	214	234	239	251	260	265	266
Social sciences, total .....	1,230	1,239	1,258	1,265	1,295	1,313	1,316	1,314
Agricultural economics .....	52	52	53	52	53	54	54	54
Anthropology (cultural & social) .....	122	126	128	130	132	135	135	137
Economics (except agricultural) .....	195	197	201	201	204	203	197	196
Geography .....	96	97	99	99	100	101	99	100
History and philosophy of science .....	23	21	19	20	21	21	23	23
Linguistics .....	69	71	70	69	69	70	72	71
Political science .....	305	307	313	318	324	330	331	332
Sociology .....	174	175	175	176	177	178	175	172
Sociology/anthropology .....	30	28	28	25	26	25	25	25
Social sciences, n.e.c. ....	164	165	172	175	189	196	205	204
Engineering, total .....	1,238	1,276	1,313	1,335	1,371	1,397	1,411	1,432
Aerospace engineering .....	42	44	48	50	52	53	52	54
Agricultural engineering .....	41	41	41	40	38	38	38	38
Biomedical engineering .....	50	51	56	56	57	59	61	64
Chemical engineering .....	134	139	140	140	141	141	143	143
Civil engineering .....	187	194	200	202	212	218	227	231
Electrical engineering .....	199	207	215	217	224	229	233	237
Engineering science .....	35	36	37	39	41	39	36	36
Industrial eng./manufacturing eng. ....	127	134	138	147	156	159	162	163
Mechanical engineering .....	176	179	184	184	186	188	188	188
Metallurgical/materials eng. ....	89	96	101	101	104	106	107	112
Mining engineering .....	27	28	28	30	29	26	24	24
Nuclear engineering .....	26	26	25	25	26	26	24	23
Petroleum engineering .....	20	20	20	20	20	21	20	18
Engineering, n.e.c. ....	85	81	80	84	85	94	96	101

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 2. Number of science, engineering, and health departments  
in doctorate-granting institutions, by detailed field: 1990-97**

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, health fields .....	2,515	2,556	2,639	2,737	2,807	2,863	2,883	2,842
Medical fields, total .....	1,882	1,915	1,964	2,032	2,084	2,122	2,123	2,066
Anesthesiology .....	85	87	87	87	89	89	91	90
Cardiology .....	67	67	68	69	70	71	71	71
Oncology/cancer research .....	36	38	45	48	50	55	57	60
Endocrinology .....	74	74	73	72	74	74	74	71
Gastroenterology .....	65	65	66	68	71	71	71	68
Hematology .....	67	67	69	71	73	73	72	71
Neurology .....	130	135	137	145	153	154	151	154
Obstetrics and gynecology .....	92	92	95	96	96	96	95	90
Ophthalmology .....	80	80	80	81	81	81	79	78
Otorhinolaryngology .....	70	70	70	71	72	72	72	68
Pediatrics .....	107	107	109	111	115	116	118	112
Preventive medicine/community health .....	165	166	173	178	182	186	187	186
Psychiatry .....	101	100	101	103	107	107	104	102
Pulmonary disease .....	63	62	64	67	68	69	68	66
Radiology .....	128	131	135	137	139	141	138	134
Surgery .....	221	233	238	246	251	257	259	246
Clinical medicine, n.e.c. ....	331	341	354	382	393	410	416	399
Other health fields, total .....	633	641	675	705	723	741	760	776
Dental sciences .....	78	76	82	87	84	83	82	77
Nursing .....	123	126	132	136	140	146	144	150
Pharmaceutical sciences .....	83	84	89	91	92	94	97	95
Speech pathology/audiology .....	126	127	130	133	135	136	137	139
Veterinary sciences .....	41	41	42	44	45	46	46	47
Health related, n.e.c. ....	182	187	200	214	227	236	254	268

**KEY:** n.e.c. = Not elsewhere classified

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 3. Number of science, engineering, and health departments  
in master's-granting institutions, by detailed field: 1990-97**

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields .....	1,328	1,375	1,414	1,458	1,512	1,538	1,538	1,579
Total, science and engineering fields .....	1,175	1,209	1,237	1,274	1,317	1,329	1,317	1,346
Sciences, total .....	1,005	1,039	1,068	1,102	1,139	1,148	1,143	1,164
Physical sciences, total .....	117	120	118	123	124	121	117	121
Astronomy .....	0	0	0	0	0	0	0	0
Chemistry .....	79	79	79	79	79	75	73	74
Physics .....	30	31	30	32	32	32	31	32
Physical sciences, n.e.c. ....	8	10	9	12	13	14	13	15
Earth, atmos., & ocean sci., total .....	50	53	56	55	57	63	63	66
Atmospheric sciences .....	1	1	1	1	1	2	2	2
Geosciences .....	29	30	29	28	29	30	30	31
Oceanography .....	5	5	6	6	6	6	5	6
Earth, atmos., & ocean sci., n.e.c. ....	15	17	20	20	21	25	26	27
Mathematical sciences, total .....	95	98	101	107	108	108	107	111
Mathematics & applied mathematics .....	92	94	97	101	102	102	102	106
Statistics .....	3	4	4	6	6	6	5	5
Computer sciences .....	75	77	81	86	90	91	92	92
Agricultural sciences .....	24	25	26	26	32	33	31	30
Biological sciences, total .....	170	174	175	173	172	176	174	176
Anatomy .....	0	0	0	0	0	0	0	0
Biochemistry .....	2	2	2	3	4	4	4	4
Biology .....	135	137	136	132	130	130	131	131
Biometry/epidemiology .....	0	1	0	0	0	0	0	0
Biophysics .....	0	0	0	0	0	0	0	0
Botany .....	3	3	3	2	2	2	2	2
Cell biology .....	0	0	0	1	1	2	1	3
Ecology .....	3	3	3	3	3	3	2	4
Entomology/parasitology .....	0	0	0	0	0	0	0	0
Genetics .....	1	1	1	1	1	1	1	1
Microbio., immunology, & virology .....	2	2	2	2	2	2	2	3
Nutrition .....	9	9	11	12	13	15	15	13
Pathology .....	2	2	2	2	2	2	2	1
Pharmacology .....	1	1	1	1	0	0	0	0
Physiology .....	0	0	0	0	0	0	0	0
Zoology .....	2	3	3	2	2	2	2	2
Biosciences, n.e.c. ....	10	10	11	12	12	13	12	12
Psychology, total .....	205	211	223	234	242	239	242	250
Psychology, general .....	91	92	87	90	90	89	91	92
Clinical psychology .....	24	24	30	31	35	35	35	37
Psychology, n.e.c. ....	90	95	106	113	117	115	116	121
Social sciences, total .....	269	281	288	298	314	317	317	318
Agricultural economics .....	2	2	3	4	4	4	4	4
Anthropology (cultural & social) .....	11	11	11	11	11	11	11	12
Economics (except agricultural) .....	32	33	33	34	34	35	36	36
Geography .....	21	22	23	23	23	23	23	23
History and philosophy of science .....	0	0	0	0	0	0	0	0
Linguistics .....	4	6	7	7	7	7	7	7
Political science .....	99	101	103	104	111	113	113	111
Sociology .....	41	44	45	45	46	47	45	47
Sociology/anthropology .....	3	2	2	2	2	2	2	2
Social sciences, n.e.c. ....	56	60	61	68	76	75	76	76
Engineering, total .....	170	170	169	172	178	181	174	182
Aerospace engineering .....	3	2	2	2	4	4	3	3
Agricultural engineering .....	0	0	0	0	0	0	0	0
Biomedical engineering .....	3	3	3	4	4	4	3	4
Chemical engineering .....	6	7	7	7	7	8	8	8
Civil engineering .....	30	30	29	30	32	35	35	35
Electrical engineering .....	41	40	41	41	41	43	43	45
Engineering science .....	2	2	2	2	2	2	2	2
Industrial eng./manufacturing eng. ....	26	27	28	28	28	30	28	27
Mechanical engineering .....	24	23	22	23	23	24	22	23
Metallurgical/materials eng. ....	6	6	6	6	6	5	4	5
Mining engineering .....	4	4	4	4	4	2	2	2
Nuclear engineering .....	0	0	0	0	0	0	0	0
Petroleum engineering .....	1	1	1	1	1	1	1	1
Engineering, n.e.c. ....	24	25	24	24	26	23	23	27

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 3. Number of science, engineering, and health departments  
in master's-granting institutions, by detailed field: 1990-97**

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, health fields .....	153	166	177	184	195	209	221	233
Medical fields, total .....	7	9	11	13	16	17	15	16
Anesthesiology .....	1	1	2	3	3	3	2	3
Cardiology .....	0	0	0	0	0	0	0	0
Oncology/cancer research .....	0	0	0	0	0	0	0	0
Endocrinology .....	0	0	0	0	0	0	0	0
Gastroenterology .....	0	0	0	0	0	0	0	0
Hematology .....	0	0	0	0	0	0	0	0
Neurology .....	0	0	0	0	0	0	0	0
Obstetrics and gynecology .....	0	0	0	0	0	0	0	0
Ophthalmology .....	0	0	0	0	0	0	0	0
Otorhinolaryngology .....	0	0	0	0	0	0	0	0
Pediatrics .....	0	0	0	0	0	0	0	0
Preventive medicine/community health .....	4	6	6	7	8	8	8	8
Psychiatry .....	1	1	1	1	2	2	1	1
Pulmonary disease .....	0	0	0	0	0	0	0	0
Radiology .....	0	0	0	0	0	1	1	1
Surgery .....	0	0	0	0	0	0	0	0
Clinical medicine, n.e.c. ....	1	1	2	2	3	3	3	3
Other health fields, total .....	146	157	166	171	179	192	206	217
Dental sciences .....	0	0	0	0	0	0	0	0
Nursing .....	45	49	52	55	58	67	70	74
Pharmaceutical sciences .....	3	2	2	2	1	1	1	1
Speech pathology/audiology .....	51	56	57	56	57	59	63	65
Veterinary sciences .....	1	1	1	1	1	1	1	1
Health related, n.e.c. ....	46	49	54	57	62	64	71	76

**KEY:** n.e.c. = Not elsewhere classified

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 4. Departmental response rates: 1975-97**

Year	Total	Complete response	Percent	Partial response	Percent	Non-response	Percent
1975 .....	9,162	8,998	98.2	NA	NA	NA	NA
1976 .....	9,275	9,148	98.6	NA	NA	NA	NA
1977 .....	9,513	9,432	99.1	NA	NA	NA	NA
1978 <sup>1</sup> .....	8,242	8,077	98.0	NA	NA	NA	NA
1979 .....	9,796	9,446	96.4	NA	NA	NA	NA
1980 .....	9,930	9,593	96.6	NA	NA	NA	NA
1981 .....	9,917	8,594	86.7	613	6.2	710	7.2
1982 .....	9,776	8,104	82.9	744	7.6	928	9.5
1983 .....	9,663	8,070	83.5	816	8.4	777	8.0
1984 <sup>2</sup> .....	8,748	7,490	85.6	643	7.4	615	7.0
1985 <sup>2</sup> .....	9,025	7,818	86.6	672	7.4	535	5.9
1986 <sup>2</sup> .....	9,097	7,817	85.9	779	8.6	501	5.5
1987 <sup>2</sup> .....	9,254	8,030	86.8	715	7.7	509	5.5
1988 .....	10,295	8,812	85.6	970	9.4	513	5.0
1989 .....	10,318	8,908	86.3	891	8.6	519	5.0
1990 .....	10,483	8,884	84.7	1,053	10.0	546	5.2
1991 .....	10,705	9,052	84.6	1,186	11.1	467	4.4
1992 .....	10,936	9,066	82.9	1,538	14.1	332	3.0
1993 .....	11,146	9,156	82.1	1,555	14.0	435	3.9
1994 .....	11,411	8,863	77.7	2,109	18.5	439	3.8
1995 .....	11,598	9,514	82.0	1,730	14.9	354	3.1
1996 .....	11,592	9,851	85.0	1,522	13.1	219	1.9
1997 .....	11,597	9,720	83.8	1,665	14.4	212	1.8

<sup>1</sup> Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

<sup>2</sup> Master's-granting institutions were surveyed on a sample basis from 1984 through 1987.

**NOTE:** Departments providing partial responses are included in the complete response column prior to 1981 and reported separately beginning in 1981.

**KEY:** NA = Not available

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 5. Imputation for nonresponse in doctorate-granting institutions, by field and enrollment status: 1995-97**

Area of science and engineering	Number of graduate departments		Total in survey			Number imputed			Imputation rate (percent)		
	In universe	Totally imputed	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates
Fall 1997											
Total, all areas .....	10,018	178	301,573	123,077	37,928	4,539	3,134	757	1.5	2.5	2.0
Engineering .....	1,432	22	63,834	30,647	2,938	714	909	20	1.1	3.0	.7
Physical sciences .....	571	7	26,268	3,384	5,836	152	70	8	.6	2.1	.1
Earth, atmospheric, & ocean sciences .....	349	7	9,934	3,052	934	193	21	30	1.9	.7	3.2
Mathematical sciences .....	390	7	11,538	3,325	303	144	50	2	1.2	1.5	.7
Computer sciences .....	283	5	16,488	13,618	315	301	387	0	1.8	2.8	.0
Agricultural sciences .....	328	1	8,677	2,401	692	30	1	5	.3	.0	.7
Biological sciences .....	1,951	26	45,064	7,806	14,872	646	108	199	1.4	1.4	1.3
Psychology .....	558	19	28,764	10,346	560	710	472	1	2.5	4.6	.2
Social sciences .....	1,314	33	51,594	22,736	356	892	403	3	1.7	1.8	.8
Health fields .....	2,842	51	39,412	25,762	11,122	757	713	489	1.9	2.8	4.4
Fall 1996											
Total, all areas .....	10,054	200	304,234	127,460	37,028	6,116	2,294	1,068	2.0	1.8	2.9
Engineering .....	1,411	14	64,067	32,378	2,662	829	398	13	1.3	1.2	.5
Physical sciences .....	570	8	27,317	3,515	5,803	400	19	58	1.5	.5	1.0
Earth, atmospheric, & ocean sciences .....	347	7	10,255	3,427	859	244	98	9	2.4	2.9	1.0
Mathematical sciences .....	393	9	12,324	3,671	326	279	56	7	2.3	1.5	2.1
Computer sciences .....	281	4	15,633	13,478	247	545	145	8	3.5	1.1	3.2
Agricultural sciences .....	318	3	8,882	2,347	665	69	49	5	.8	2.1	.8
Biological sciences .....	1,980	38	45,837	7,843	14,918	1,011	163	322	2.2	2.1	2.2
Psychology .....	555	19	28,705	10,016	589	844	252	0	2.9	2.5	.0
Social sciences .....	1,316	34	53,212	23,898	444	1,219	655	2	2.3	2.7	.5
Health fields .....	2,883	64	38,002	26,887	10,515	676	459	644	1.8	1.7	6.1
Fall 1995											
Total, all areas .....	10,040	297	305,659	131,558	35,828	12,636	6,308	827	4.1	4.8	2.3
Engineering .....	1,397	53	65,828	34,089	2,628	3,652	1,483	65	5.5	4.4	2.5
Physical sciences .....	576	14	28,233	3,558	5,829	589	98	83	2.1	2.8	1.4
Earth, atmospheric, & ocean sciences .....	350	10	10,728	3,416	845	332	88	45	3.1	2.6	5.3
Mathematical sciences .....	393	15	12,743	3,665	259	336	90	6	2.6	2.5	2.3
Computer sciences .....	274	7	15,216	13,054	213	460	386	5	3.0	3.0	2.3
Agricultural sciences .....	324	6	9,156	2,437	688	110	29	5	1.2	1.2	.7
Biological sciences .....	2,000	54	46,435	7,674	14,672	1,801	317	434	3.9	4.1	3.0
Psychology .....	550	26	28,478	10,593	577	1,752	664	12	6.2	6.3	2.1
Social sciences .....	1,313	56	52,596	25,095	376	1,953	1,329	5	3.7	5.3	1.3
Health fields .....	2,863	56	36,246	27,977	9,741	1,651	1,824	167	4.6	6.5	1.7

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 6. Imputation for nonresponse in master's-granting institutions,  
by field and enrollment status: 1995-97**

Area of science and engineering	Number of graduate departments		Total in survey			Number imputed			Imputation rate (percent)		
	In universe	Totally imputed	Full-time	Part-time	Postdoc-torates	Full-time	Part-time	Postdoc-torates	Full-time	Part-time	Postdoc-torates
Fall 1997											
Total, all areas .....	1,579	34	25,269	37,185	115	1,286	751	0	5.1	2.0	0.0
Engineering .....	182	5	1,760	4,767	7	81	95	0	4.6	2.0	.0
Physical sciences .....	121	0	624	832	71	0	0	0	.0	.0	.0
Earth, atmospheric, & ocean sciences .....	66	2	616	1,042	4	18	6	0	2.9	.6	.0
Mathematical sciences .....	111	0	615	1,281	2	0	0	0	.0	.0	.0
Computer sciences .....	92	4	1,832	4,072	3	159	128	0	8.7	3.1	.0
Agricultural sciences .....	30	0	433	299	9	0	0	0	.0	.0	.0
Biological sciences .....	176	0	1,934	2,331	8	0	0	0	.0	.0	.0
Psychology .....	250	8	6,758	7,274	7	643	333	0	9.5	4.6	.0
Social sciences .....	318	12	3,879	7,819	0	218	174	0	5.6	2.2	.0
Health fields .....	233	3	6,818	7,468	4	167	15	0	2.4	.2	.0
Fall 1996											
Total, all areas .....	1,538	18	24,219	38,306	79	236	871	0	1.0	2.3	0.0
Engineering .....	174	3	1,784	4,994	12	5	73	0	.3	1.5	.0
Physical sciences .....	117	1	639	884	36	0	18	0	.0	2.0	.0
Earth, atmospheric, & ocean sciences .....	63	0	571	1,027	2	0	0	0	.0	.0	.0
Mathematical sciences .....	107	0	642	1,378	0	0	0	0	.0	.0	.0
Computer sciences .....	92	2	1,540	3,941	3	63	99	0	4.1	2.5	.0
Agricultural sciences .....	31	0	416	269	12	0	0	0	.0	.0	.0
Biological sciences .....	174	1	1,907	2,541	8	1	32	0	.1	1.3	.0
Psychology .....	242	2	6,763	7,725	5	56	148	0	.8	1.9	.0
Social sciences .....	317	8	3,700	7,837	0	87	432	0	2.4	5.5	.0
Health fields .....	221	1	6,257	7,710	1	24	69	0	.4	.9	.0
Fall 1995											
Total, all areas .....	1,538	33	23,489	39,026	98	678	993	10	2.9	2.5	10.2
Engineering .....	181	5	1,946	5,336	13	24	50	0	1.2	.9	.0
Physical sciences .....	121	2	669	957	34	2	45	6	.3	4.7	17.6
Earth, atmospheric, & ocean sciences .....	63	1	547	1,114	0	2	8	0	.4	.7	.0
Mathematical sciences .....	108	0	667	1,434	3	0	0	0	.0	.0	.0
Computer sciences .....	91	1	1,274	3,888	0	0	4	0	.0	.1	.0
Agricultural sciences .....	33	0	464	310	13	0	0	0	.0	.0	.0
Biological sciences .....	176	2	1,895	2,732	28	8	57	4	.4	2.1	14.3
Psychology .....	239	9	6,744	7,826	5	522	318	0	7.7	4.1	.0
Social sciences .....	317	10	3,634	8,124	0	97	448	0	2.7	5.5	.0
Health fields .....	209	3	5,649	7,305	2	23	63	0	.4	.9	.0

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 7. Imputation rates for all departments  
at all graduate institutions: fall 1997**

[ Number of departments having imputed data = 1,877 ]

Items 5 and 6 Enrollment status, mechanism of support, and gender of S&E graduate students	Students receiving financial assistance										Self support (includ. loans & family sources)	Total for all sources (sum of columns A - K)
	Federal sources (excluding loans)							Non-Federal sources				
	DoD	HHS		NSF	Dept. of Agr.	NASA	Other Federal sources	Inst. support	Foreign sources	Other U.S. sources		
		NIH	Other HHS									
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	
<b>Item 5</b> Full-time graduate S&E students:												
Graduate fellowships .....	5.0	4.7	6.0	9.7	9.9	3.4	8.6	7.4	7.9	9.8	NA	7.8
Graduate traineeships .....	8.5	6.2	11.2	7.8	28.0	1.2	11.8	10.0	6.7	15.0	NA	9.1
Graduate research assistants .....	10.7	9.9	5.0	10.2	13.5	5.4	10.7	9.8	6.5	10.2	NA	9.9
Graduate teaching assistants .....	NA	0.7	7.6	6.0	26.7	0.0	11.8	10.8	NA	14.4	NA	10.8
Other types of support .....	69.3	17.4	22.4	7.0	0.0	0.0	4.2	15.0	11.4	7.9	17.3	17.2
Full-time total .....	23.2	8.6	9.5	10.0	13.4	4.8	10.0	10.5	9.0	10.0	17.3	1.8
Full-time women .....	15.9	9.3	10.0	8.8	14.5	3.7	10.1	12.4	7.2	11.5	20.1	3.9
Full-time first-time total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5
Full-time first-time women .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.4
<b>Item 6</b> Part-time graduate S&E students:												
Total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5
Women .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7

Item 7 Race/ethnicity of full-time and part-time graduate S&E students, by sex	U.S. citizens and permanent residents								Total (sum of columns A - H)
	Black non- Hispanic	American Indian/ Alaskan	Asian/ Pacific Islander	Hispanic	White non- Hispanic	Other	Unknown	Foreign	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	
Men enrolled full-time .....	6.9	3.0	6.2	7.3	7.8	3.9	5.3	8.7	3.9
Women enrolled full-time .....	9.6	5.2	5.6	8.3	7.3	7.6	7.4	7.4	3.9
Full-time, total .....	7.5	3.6	4.4	6.6	6.2	4.2	4.8	6.3	1.8
Men enrolled part-time .....	10.2	3.7	6.2	6.6	9.5	10.8	7.6	9.8	5.0
Women enrolled part-time .....	10.3	2.3	5.1	7.7	8.7	4.6	8.4	9.7	4.7
Part-time, total .....	10.1	3.0	5.5	7.1	8.6	6.5	8.0	9.3	2.5

Item 8 S&E postdoctorates and nonfaculty research staff with doctorates	Postdoctorates						Other non- faculty research staff with doctor- ates	
	Source of support					Total for all sources (A - D)		Foreign postdoc- torates
	Federal			Non- Federal				
	Fellow- ships	Trainee- ships	Research grants					
(A)	(B)	(C)	(D)	(E)	(F)	(G)		
Total .....	8.7	14.1	9.7	10.6	6.3	5.7	6.4	
Women .....	6.9	11.6	9.8	10.3	6.3	6.0	6.9	
With MD, DDS or DVM degrees .....	11.9	16.3	10.6	11.2	9.2	7.6	6.1	

**KEY:** NA = not applicable

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 8. Comparison of graduate enrollment data as originally published and as modified through the fall 1997 graduate student survey cycle: 1975-97**

Year	Total, all institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	Percent change	Original total	Revised total	Percent change	Original total	Revised total	Percent change
Total graduate enrollment in surveyed fields									
1975 <sup>1</sup> .....	336,843	328,550	-2.5	290,662	295,550	1.7	46,181	33,000	-28.5
1976 .....	345,979	333,755	-3.5	297,280	299,724	.8	48,699	34,031	-30.1
1977 .....	362,978	345,416	-4.8	306,710	307,473	.2	56,268	37,943	-32.6
1978 <sup>2</sup> .....	N/A	339,912	N/A	311,982	300,482	-3.7	N/A	39,430	N/A
1979 .....	375,267	357,609	-4.7	321,770	316,633	-1.6	53,497	40,976	-23.4
1980 .....	383,210	367,111	-4.2	333,658	326,147	-2.3	49,552	40,964	-17.3
1981 .....	392,034	375,158	-4.3	340,203	332,698	-2.2	51,831	42,460	-18.1
1982 .....	399,682	382,334	-4.3	347,414	339,123	-2.4	52,268	43,211	-17.3
1983 .....	413,564	390,474	-5.6	358,276	345,909	-3.5	55,288	44,565	-19.4
1984 <sup>3</sup> .....	415,064	394,670	-4.9	363,470	348,277	-4.2	51,594	46,393	-10.1
1985 <sup>3</sup> .....	434,836	404,021	-7.1	371,052	357,748	-3.6	63,784	46,273	-27.5
1986 <sup>3</sup> .....	446,102	415,542	-6.9	384,203	368,366	-4.1	61,899	47,176	-23.8
1987 <sup>3</sup> .....	449,585	421,512	-6.2	388,681	373,873	-3.8	60,904	47,639	-21.8
1988 .....	445,595	424,613	-4.7	391,683	379,454	-3.1	53,912	45,159	-16.2
1989 .....	440,983	434,567	-1.5	385,025	386,779	.5	55,958	47,788	-14.6
1990 .....	458,943	452,178	-1.5	398,405	400,371	.5	60,538	51,807	-14.4
1991 .....	475,691	471,262	-.9	411,296	415,509	1.0	64,395	55,753	-13.4
1992 .....	495,397	493,632	-.4	427,792	434,505	1.6	67,605	59,127	-12.5
1993 .....	506,678	504,449	-.4	440,875	442,512	.4	65,803	61,937	-5.9
1994 .....	506,626	504,542	-.4	441,480	442,915	.3	65,146	61,627	-5.4
1995 .....	501,510	499,732	-.4	436,328	437,217	.2	65,182	62,515	-4.1
1996 .....	494,526	494,219	-.1	430,631	431,694	.2	63,895	62,525	-2.1
1997 .....	487,104	N/A	N/A	424,650	N/A	N/A	62,454	N/A	N/A
Full-time									
1975 <sup>1</sup> .....	228,316	219,687	-3.8	210,641	207,450	-1.5	17,675	12,237	-30.8
1976 .....	233,748	223,446	-4.4	215,355	211,227	-1.9	18,393	12,219	-33.6
1977 .....	238,202	226,776	-4.8	218,226	213,269	-2.3	19,976	13,507	-32.4
1978 <sup>2</sup> .....	N/A	223,030	N/A	217,588	209,107	-3.9	N/A	13,923	N/A
1979 .....	243,331	231,790	-4.7	224,057	217,437	-3.0	19,274	14,353	-25.5
1980 .....	249,111	238,448	-4.3	230,601	223,620	-3.0	18,510	14,828	-19.9
1981 .....	253,428	242,076	-4.5	234,529	227,418	-3.0	18,899	14,658	-22.4
1982 .....	255,959	244,796	-4.4	237,676	230,458	-3.0	18,283	14,338	-21.6
1983 .....	263,800	252,055	-4.5	243,646	236,389	-3.0	20,154	15,666	-22.3
1984 <sup>3</sup> .....	264,146	253,922	-3.9	246,848	237,444	-3.8	17,298	16,478	-4.7
1985 <sup>3</sup> .....	269,319	257,287	-4.5	249,666	241,059	-3.4	19,653	16,228	-17.4
1986 <sup>3</sup> .....	279,235	266,182	-4.7	259,980	249,763	-3.9	19,255	16,419	-14.7
1987 <sup>3</sup> .....	285,200	271,066	-5.0	264,862	254,307	-4.0	20,338	16,759	-17.6
1988 .....	288,619	275,194	-4.7	268,385	259,698	-3.2	20,234	15,496	-23.4
1989 .....	286,619	282,719	-1.4	267,554	266,818	-.3	19,065	15,901	-16.6
1990 .....	295,836	292,830	-1.0	275,262	275,433	.1	20,574	17,397	-15.4
1991 .....	308,669	307,040	-.5	286,756	287,809	.4	21,913	19,231	-12.2
1992 .....	323,399	322,609	-.2	299,753	301,772	.7	23,646	20,837	-11.9
1993 .....	330,249	329,679	-.2	307,181	307,693	.2	23,068	21,986	-4.7
1994 .....	331,969	332,129	.0	307,964	309,329	.4	24,005	22,800	-5.0
1995 .....	330,235	329,148	-.3	305,652	305,659	.0	24,583	23,489	-4.5
1996 .....	328,368	328,453	.0	303,586	304,234	.2	24,782	24,219	-2.3
1997 .....	326,842	N/A	N/A	301,573	N/A	N/A	25,269	N/A	N/A

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 8. Comparison of graduate enrollment data as originally published and as modified through the fall 1997 graduate student survey cycle: 1975-97**

Year	Total, all institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	Percent change	Original total	Revised total	Percent change	Original total	Revised total	Percent change
Part-time									
1975 <sup>1</sup> .....	108,527	108,863	0.3	80,021	88,100	10.1	28,506	20,763	-27.2
1976 .....	112,231	110,309	-1.7	81,925	88,497	8.0	30,306	21,812	-28.0
1977 .....	124,776	118,640	-4.9	88,484	94,204	6.5	36,292	24,436	-32.7
1978 <sup>2</sup> .....	N/A	116,882	N/A	94,394	91,375	-3.2	N/A	25,507	N/A
1979 .....	131,936	125,819	-4.6	97,713	99,196	1.5	34,223	26,623	-22.2
1980 .....	134,099	128,663	-4.1	103,057	102,527	-5	31,042	26,136	-15.8
1981 .....	138,606	133,082	-4.0	105,674	105,280	-4	32,932	27,802	-15.6
1982 .....	143,723	137,538	-4.3	109,738	108,665	-1.0	33,985	28,873	-15.0
1983 .....	149,764	138,419	-7.6	114,630	109,520	-4.5	35,134	28,899	-17.7
1984 <sup>3</sup> .....	150,918	140,748	-6.7	116,622	110,833	-5.0	34,296	29,915	-12.8
1985 <sup>3</sup> .....	165,517	146,734	-11.3	121,386	116,689	-3.9	44,131	30,045	-31.9
1986 <sup>3</sup> .....	166,867	149,360	-10.5	124,223	118,603	-4.5	42,644	30,757	-27.9
1987 <sup>3</sup> .....	164,385	150,446	-8.5	123,819	119,566	-3.4	40,566	30,880	-23.9
1988 .....	156,976	149,419	-4.8	123,298	119,756	-2.9	33,678	29,663	-11.9
1989 .....	154,364	151,848	-1.6	117,471	119,961	2.1	36,893	31,887	-13.6
1990 .....	163,107	159,348	-2.3	123,143	124,938	1.5	39,964	34,410	-13.9
1991 .....	167,022	164,222	-1.7	124,540	127,700	2.5	42,482	36,522	-14.0
1992 .....	171,998	171,023	-.6	128,039	132,733	3.7	43,959	38,290	-12.9
1993 .....	176,429	174,770	-.9	133,694	134,819	.8	42,735	39,951	-6.5
1994 .....	174,657	172,413	-1.3	133,516	133,586	.1	41,141	38,827	-5.6
1995 .....	171,275	170,584	-.4	130,676	131,558	.7	40,599	39,026	-3.9
1996 .....	166,158	165,766	-.2	127,045	127,460	.3	39,113	38,306	-2.1
1997 .....	160,262	N/A	N/A	123,077	N/A	N/A	37,185	N/A	N/A

<sup>1</sup> The 1976 survey also collected 1975 data from master's-granting institutions.

<sup>2</sup> Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

<sup>3</sup> These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984 through 1987. See "Technical Notes" for further information.

**NOTE:** The percent change column is presented as a measure of retroactive changes in survey definitions. Three survey changes in the late 1980s and early 1990s had a retroactive effect on figures reported for earlier years. First, degree-granting status (doctorate or master's) used to be determined by an institution's status each year. Beginning in 1992, degree-granting status was determined by the status reported in the latest survey year. This change shifted numerous institutions (and students) from master's-granting to doctorate-granting categories for years before 1992. Second, in 1988 guidelines to determine S&E departments were tightened. This change meant retroactively dropping departments in fields like educational psychology, social work, and cultural studies from the survey population. Third, improved estimates were generated for years in which enrollments at master's-granting institutions were sampled (1984-87).

**KEY:** N/A = Not available

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering